

Description of Two New Species of the Genus *Chicoreus* (Gastropoda: Muricidae) from Southern Africa

by

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Abstract. Two new species—*Chicoreus fosterorum* and *C. zululandensis*—are described from southern Africa and compared with *Chicoreus cloveri* Houart, 1985, *C. crosnieri* Houart, 1985, *C. nobilis* Shikama, 1977, *C. rossiteri* (Crosse, 1872), and *C. ryukyuensis* Shikama, 1978. Protoconchs are illustrated for comparison.

INTRODUCTION

In the course of the revision of the genus *Chicoreus* from the Indo-West Pacific (Houart, in preparation), all species, fossil and Recent, were carefully studied and type material, as well as a great number of specimens, examined. The result of this investigation was the discovery of several new species of which a majority already have been named in previous papers (HOUART, 1983, 1984, 1985; HOUART & PAIN, 1982). The present paper describes two new South African species now included in what I call the *Chicoreus aculeatus* group (*C. aculeatus* (Lamarck, 1822) being the oldest taxon of this group).

SYSTEMATIC DESCRIPTIONS

Family MURICIDAE Rafinesque, 1815

Subfamily MURICINAE Rafinesque, 1815

Genus *Chicoreus* Montfort, 1810

Chicoreus fosterorum Houart, sp. nov.

(Figures 1-5)

Type material: Holotype NM 5343 (36.5 mm); 1 paratype NM E2031 (51 mm); 1 paratype R. Houart collection (41 mm) (*ex* Glass and Foster); 1 paratype No. 86-083, Glass and Foster collection (46.5 mm).

Type locality: Mzamba, Pondoland, Transkei, South Africa, ca. 30°51'S, 29°46'E; no other data known.

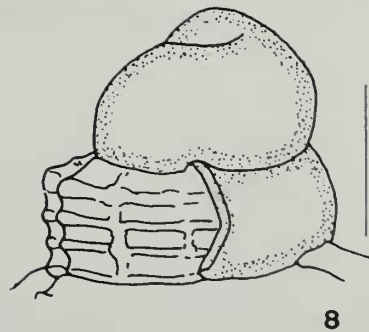
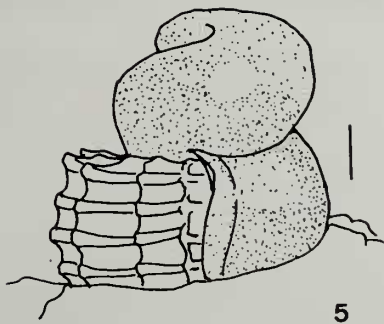
Paratypes: NM E2031: East Transkei, between Mtentu and Mzamba rivers, between about 30°51'S, 29°46'E and 31°33'S, 28°31'E; Glass and Foster and Houart collections: on Aliwal Shoal, south coast of Natal, 30°15'S, 30°49'E, 50 m depth.

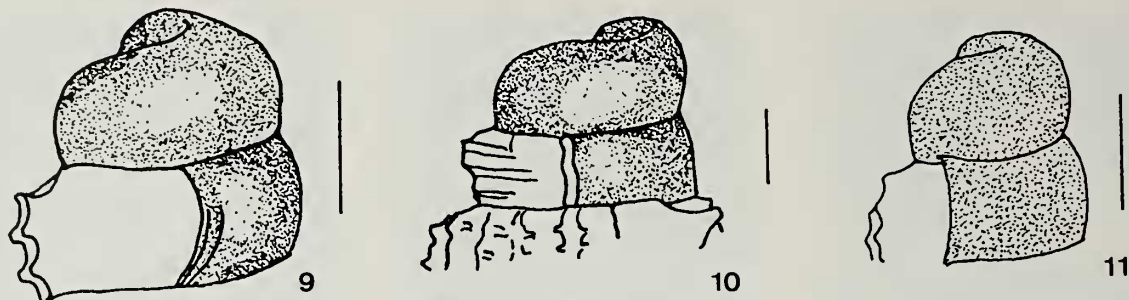
Description: Shell small and solid, up to 51 mm in length. Spire high, consisting of 2 protoconch whorls and 5 teleconch whorls. Protoconch large and globose. Suture appressed. Last whorl bearing 3 frondose varices ornamented with 5 short and foliaceous spines. Shoulder spine broad and very frondose, other spines short and broadly open; anterior spine largest, with short intermediate spinelets. Intervarical axial sculpture consisting of a single, prominent node. Spiral sculpture consisting of numerous squamous cords and threads on the whole surface. Aperture roundly ovate. Columellar lip adherent to the shell and slightly erect anteriorly, smooth. Anal notch narrow and

Explanation of Figures 1 to 8

Figures 1-5. *Chicoreus fosterorum* sp. nov. 1 and 2: holotype NM 5342, 36.5 × 17.5 mm. 3: paratype R. Houart collection, 41 × 22.5 mm. 4: paratype Glass and Foster collection No. 86-083, 46.5 × 25 mm. 5: protoconch (paratype Glass and Foster collection). Scale: 0.5 mm.

Figures 6-8. *Chicoreus zululandensis* sp. nov. 6 and 7: holotype NM D8049, 31.5 × 16.2 mm. 8: protoconch (holotype). Scale: 0.5 mm.





Explanation of Figures 9 to 11

Figure 9. Protoconch of *Chicoreus cloveri* Houart, 1985 (paratype R. Houart collection).

Figure 10. Protoconch of *Chicoreus crosnieri* Houart, 1985 (holotype MNHN).

Figure 11. Protoconch of *Chicoreus ryukyuensis* Shikama, 1978 (Kanagawa Prefectural Museum, No. 3281).

fairly deep. Outer apertural lip crenulate, briefly striate inside. Siphonal canal long, narrowly open and slightly bent backwards at the tip. Ornamented by 3 or 4 short, straight, frondose and broadly open spines. Color white, with protoconch and first 3 or 4 spire whorls pinkish orange.

Discussion: Included in a small group of species from the Indo-West Pacific region, *Chicoreus fosterorum* is morphologically most similar to three of those species, namely *C. cloveri* Houart, 1985, *C. nobilis* Shikama, 1977, and *C. ryukyuensis* Shikama, 1978. *Chicoreus cloveri* is smaller with a much smaller protoconch (Figure 9), less frondose spines with different ornamentation on the siphonal canal, the spines being smaller and situated anteriorly on the canal. The anal notch of *C. cloveri* is larger and the anterior end of its columellar lip is recurved and thickened, but straight and smooth for *C. fosterorum*. From *C. nobilis* the new species differs by its paucispiral and globose protoconch, which is conical and multispiral in *C. nobilis*, which also has a broader anal notch, 2 or 3 intervarical axial ridges and a different ornamentation of the varices and siphonal canal, consisting of fewer and longer spines. *Chicoreus ryukyuensis* is similar, although having less frondose spines, a comparatively smaller protoconch with different terminal varix (Figure 11), a broader and larger anal notch, and more ovate aperture.

Etymology: Named for Robert Foster and his daughters, of Santa Barbara, California, whose loans and donation of one paratype are appreciated.

Chicoreus zululandensis Houart, sp. nov.

(Figures 6–8)

Type material: Holotype NM D8049 (31.5 mm); 1 paratype NM D6733 (34.5 mm); 1 paratype R. Houart collection (30 mm) (*ex* NM D8051).

Type locality: North Zululand: SE of Kosi River mouth, 26°55.0'S, 32°55.8'E, 65 m depth, sponge, gorgonians, medium sand. Dredged by RV *Meiring Naudé*, 7 June 1987.

Paratypes: North Zululand, off Jesser Point, 27°32.8'S, 32°42.6'E, 68 m, sponge, coral rubble. Dredged by RV *Meiring Naudé*, 3 June 1987.

Description: Shell small, length up to 34.5 mm. Spire high, consisting of 2 protoconch whorls and 6 to 7 rounded teleoconch whorls. Protoconch rounded and smooth. Suture appressed. Last whorl bearing 3 frondose varices ornamented with 4 moderately sized, slightly foliaceous and upward curved, open spines. Shoulder spine shortest, sometimes obsolete; anterior spine longest. Interspiral axial sculpture consisting of 1 or 2 strong nodes. Spiral sculpture of numerous crowded squamous cords and threads. Aperture rounded. Columellar lip smooth, briefly and partially erect anteriorly. Anal notch deep and narrow, relatively small. Outer apertural lip slightly erect, crenulate, briefly and shallowly striate inside. Siphonal canal long, narrowly open, straight and very slightly bent backwards on the tip; bearing 2 equal-sized open and foliaceous spines. Color pinkish orange with paler shades, especially on the varices.

Discussion: This new species is undoubtedly related to *Chicoreus rossiteri* and *C. crosnieri*. It differs from the first in its very different protoconch, *C. rossiteri* having planktotrophic larval development with a multispiral and conical protoconch, while the paucispiral protoconch whorls of the new species indicate lecithotrophic development. The primary spiral cords are more numerous for *C. zululandensis* and both spiral cords and threads are finer. From *C. crosnieri* it differs also in its different protoconch, that of *C. crosnieri* being flatter with a different terminal varix (Figure 10). The spiral cords of the new species are narrower and more numerous, and the ornamentation of the siphonal canal is different, the spines of *C. crosnieri* being strongly bent downwards.

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